

NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

MIL-PRF-55339/29A
28 February 1979
SUPERSEDING
MIL-A-55339/29
11 January 1977

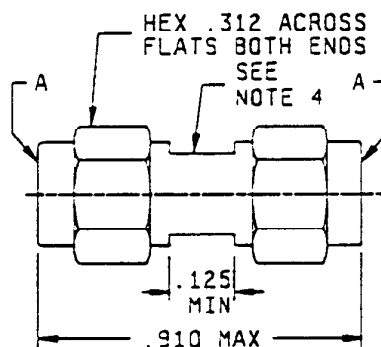
(A)

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, IN-LINE,
(WITHIN SERIES SMA PLUG TO SMA PLUG), CLASS 2

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for procuring the adapter described herein shall consist of this specification and the latest issue of Specification MIL-PRF-55339.



Reference	Series	Contact	Figure
A	SMA	Pin	2

Inches	mm
.125	3.18
.312	7.92
.910	23.11

NOTES:

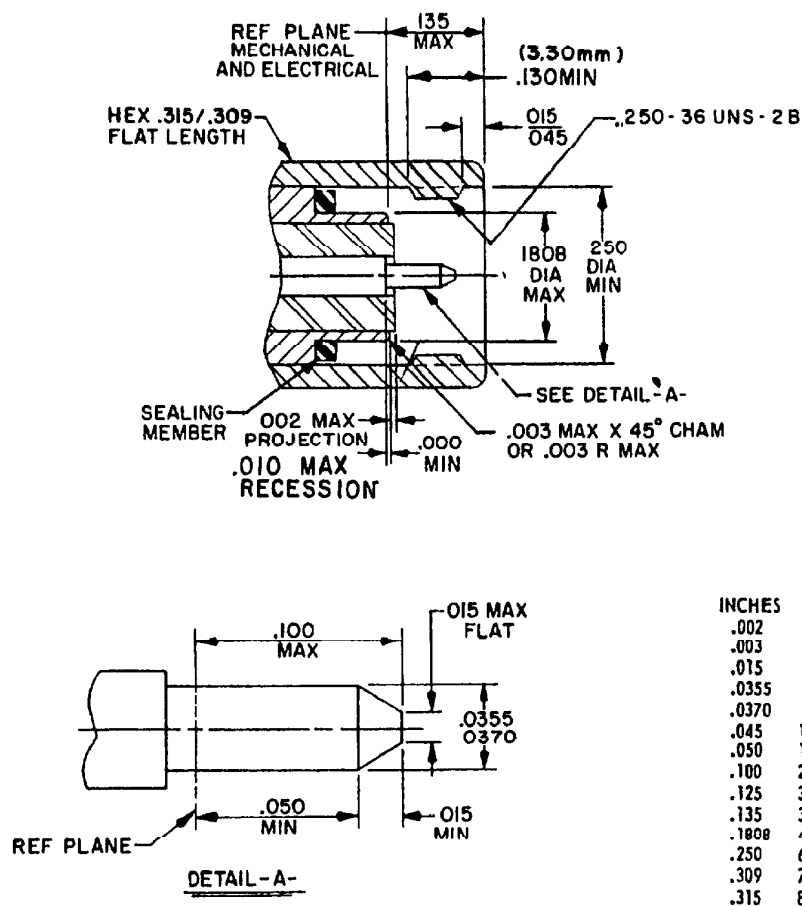
1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1 inch = 25.4 mm.
3. All undimensioned pictorial representations are for reference purposes only.
4. Wrench flats are to accommodate standard wrench opening per H-28, app 10.

(A)

FIGURE 1. General configuration, jack-plug-jack.

(A)

denotes changes



NOTES:

- NOTES:
1. Dimensions are in inches.
 2. Metric equivalents are given for general information only and are based upon 1 inch = 25.4 mm.
 3. Three holes .0168 (.41 mm) minimum diameter, equally spaced, are required for safety wiring after mating. Location on coupling nut optional
 4. .150 minimum across the narrowest part of flat.

FIGURE 2. Mating dimensions for pin terminations

DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance 50 ohms, nom.

Working voltage Sea level - 335 Vrms.
70,000 feet - 85 Vrms.

Frequency range 0 to 18.0 GHz.

Temperature range: -65° to +165°C

PERFORMANCE

Dimensions: See figures 1 and 2.

Center contact retention: Axial force - 6 lb, min.
Torque - Not applicable.

Force to engagement and disengage: Longitudinal force - Not applicable.
Torque - 2 in. lb, max.

Coupling proof torque: 15 in. lbs, min.

Mating characteristics. Not applicable.

Permeability: <2.0

Seal:

Pressurized - Not applicable.
Weatherproof - Not applicable.

Insulation resistance: 5,000 megohms, min.

Ⓐ VSWR: $1.10 + .008 F(\text{GHz})$ at .5 to 18.0 GHz

Ⓐ RF leakage (total): -60 dB, min 2 to 3 GHz.

RF insertion loss: .2 dB, max, between 2 to 3 GHz, min
(.06 $\sqrt{F(\text{GHz})}$ dB max tested at 6 GHz)

Durability 500 cycles minimum at 12 cycles/min maximum. The connector shall meet the mating characteristics and force to engage and disengage requirements.

Dielectric withstanding: Test voltage - 1,500 Vrms, min (sea level).

Contact resistance (milliohms, max)

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	4.0	6 0
Outer	2.0	Not applicable

Vibration, high frequency: Interruptions - 1 μ s, max. Test condition D.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level: Voltage - 250 V, min.

Altitude - 70,000 feet, min.

RF high potential withstanding voltage. RF voltage - 670 Vrms, min.

Frequency - 5 MHz, min.

Salt spray (corrosion): Test condition B.

Coupling mechanism retention force: 60 lb, min.

MARKING: As specified in MIL-A-55339.

- Ⓐ Part No. M55339/29-30101 without safety wire holes, 30001 with safety wire holes.
M55339/29-40101 without safety wire holes, 40001 with safety wire holes.

NOTE: For logistics purposes, only adapters with safety wire holes will be stocked.

Custodians:

Army - CR

Navy - EC

Air Force - 85

Review activities:

Army - AR, MI

Navy - SH, OS

Air Force - 11, 99

DLA - ES

User activities:

Army - AT

Navy - AS, MC, SH

Air Force - 19

Preparing activity:

Army - CR

Agent:

DLA - ES

(Project 5935-3057-11)

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